DOCUMENT RESUME

ED 178 982 CS 502 699

AUTHOR Ternent, William A.
TITLE Assessing Organizational Duplications and Domination by Served Publics.
PUB DATE Oct 79
NOTE 17p.; Report prepared at Howard University

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Communication Problems; *Interaction Process Analysis; *Organizational Communication; *Organizational Effectiveness; *Organizational Theories; *Organizations (Groups)
IDENTIFIERS *Communication Research

ABSTRACT

Arguing that, as a general principle, the most efficient, best organized and managed organization would have little duplication of work or of service to its markets or publics, this paper presents a method for assessing duplication among organizational components of work performed and of services to various publics and for determining the extent of domination of the organization or its components by various of its publics. It also offers a formula for computing indices of duplication and discusses the analysis and interpretation of data and its uses by management in reorganization decisions. Sample data and exhibits are included for illustrative purposes. (Author/FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

ED178982

ASSESSING ORGANIZATIONAL DUPLICATIONS AND DOMINATION BY SERVED PUBLICS

William A. Ternent, Ph.D.
Department of Communication Arts and Sciences
Howard University
Washington, D.C. 20059

(202) 636-6711 (O)
(703) 620-3335 (H)

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

William A. Ternent

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS502699

ASSESSING ORGANIZATIONAL DUPLICATIONS AND DOMINATION BY SERVED PUBLICS

ABSTRACT

This paper presents a method for assessing:

1. Duplication among organizational components of work performed.
2. Duplication among organizational components of service to various publics (individuals or groups, internal or external to the organization).
3. The extent of domination of the organization or its components by various of its publics.

A formula for computing indices of duplication is presented. The analysis and interpretation of data and its uses by management in reorganization decisions is discussed. Sample data and exhibits are presented for illustrative purposes.

ASSESSING ORGANIZATIONAL DUPLICATIONS AND DOMINATION BY SERVED PUBLICS

BACKGROUND AND PURPOSE

As a general principle, the most efficient, best organized and managed organization would have little duplication of work or of service to its markets or publics. Where duplication exists we would expect it to serve some reasoned purpose. Similarly, we would expect to find diversification which would insulate the organization from devastating perturbations of a limited market or the whims of a single or few customers.[1]

Few organizations long maintain characteristics of little duplication of efforts or interactions with publics. Organization components which are well differentiated tend, over time, to expand their domaines and duplicate efforts and interactions. Common results are internal organizational conflicts, confusing communication with served publics, excessive operating cost, and perceived need for reorganization. When marginal events lead to active consideration of reorganization, data concerning duplication of work and served markets or publics are pertinent to decision making and any subsequent restructuring of the organization or its product or service scopes.

It is not unusual to encounter analyses of work or served publics/markets when reviewing actions to organize or reorganize. Analysis of work functions or tasks to be performed by various organizational components is a conventional approach to structuring to perform a job (or for determining the source of unexpected or undesirable operating results.) Not so conventional in structuring to perform a job is prospective analysis of interactions or service to various publics/markets although such analyses may be valuable in anticipating future interaction problems and organizing to avoid them.

The combined analysis of an organization's work functions or tasks and the publics served by those actions is rare, as either a prospective or retrospective analysis.

The benefits of such a dual analysis are several:

1. It can reveal the extent (anticipated or actual) to which the organization as a whole (or as individual components) is a "captive" of various publics or markets.
2. It can reveal the essential network of communication/interaction (anticipated or actual), internal or external, inherent in the conduct of the organization's work.
3. It can reveal the extent of designed in or subsequently occuring duplication of work and interactions/communication in organizational structures or operating procedures.
4. If data are collected on an individual basis, it can yield insightful views into managerial behavior (such as delegation or centralized control, locus of decision making, etc.)

The purpose of this paper is to describe a method of conducting such an analysis and constructing indices which reflect the degree of duplication which may exist. Some sample data are presented. Some conclusions or observations which may be based on such data are discussed. A formula is presented which may be used to calculate indices of duplication for matrices of varying numbers of tasks and publics/markets served.

PROCEDURE

The following procedure may be employed for prospective or retrospective analysis of:

(a) The nature of the work (functions and/or tasks) of various components of an organization.

(b) The internal and external publics toward which such efforts are directed.

(c) The level of effort within the organization directed toward various types of work and publics.

(d) The extent of duplication (if any) of effort and of efforts directed toward different publics among the organizational components.

Sequential steps of the procedure are:

1. Identify the basic categories of work performed by the organization components being studied (such as administration, production, marketing, etc.) Identify within each basic category the functional activities (or tasks) required to satisfy organizational aims.

(For initial analyses, a focus at the basic functional level may be most appropriate. If specific concerns arise from the analysis more extensive, detailed (and expensive) analyses may be undertaken. The level of detail must be a function of client interests, objectives or intentions and constraining factors in the organizational environment. For instance, sensitive personnel or union relations may determine the level of detail of work investigated in an exploratory study. Such factors may also impact on whether data is collected from individuals or from work units, or if data are collected for each cell in a matrix of work and served publics or merely estimated for row and column totals.)

Once categories and functions are identified and defined, they are validated with the individuals/groups who will be involved in the subsequent study.

(Involvement of effected individuals or groups at this fundamental stage and their validation of the basis for subsequent data collection can be critical to potential future organizational change or development processes.)

2. Identify the publics of the organization. These may be (a) internal to the organization, its major components, or a larger organization of which it is a part, or (b) external to the organization. These publics may be (a) individuals, (b) small groups, (c) complete organizations, (d) mass populations, or other aggregations of individuals.

   Publics identified should be those with whom the organization components must interact to be successful. However the list of publics is determined, it also should be validated with the individuals/groups who will be involved in the subsequent study (for the reasons cited previously.)

3. Construct a data collection matrix. The publics served (step 2 above) and categories of work (step 1 above) are cast in matrix form for subsequent use in data collection.

4. Collect data. The same matrix may be used for collection of different levels of detail of data and for different unit aggregations of personnel from whom data are collected. For instance, data collected in the matrix may reflect hours, days, weeks, months or a proportion (%) of time expended.[2] The data may be collected from individuals, types of individuals (clerical, administrative, etc.), specialized or distinct components of the organization as a whole.

(The level of detail of data collected and the unit aggregation of personnel may be determined by time available, the sensitivity of personnel involved, the expectations of the person(s) calling for the analysis, the exploratory or investigative nature of the study, or other factors. In some circumstances all or a part of the data on time expended may be available through existing records. In other situations the time data may be limited to estimates based upon the reflections of personnel. The former are likely to produce the most valid data and may be most useful for making decisions for reorganization.

Data collected at an individual employee level permit analysis at all other levels of aggregation, while data collected at some aggregated level prohibit study of lower levels of aggregation. The former provide more robust data for detailed decision making while the latter may be sufficient for isolating the locus of organizational problems which may then be subjected to more detailed investigation without directly involving the remainder of the organization.

Decisions about the level of data selected for collection and the aggregation level at which it is collected are important considerations. The active collection of special (unusual) data in any organization may stimulate individual and collective reflections and reactions which are not desirable. Moreover, since the data being collected are direct reflections of individual and group behavior, the collection of them will likely be interpreted negatively by most employees involved. In short, such possibilities should be considered in planning and carrying out the study.)

5. Data manipulation. Following are primary maniuplations suggested for conducting the analyses of concern in this discussion:

(a) Aggregation of data for analysis at a desired level (depending upon the detail of data collected):

(1) Selected individuals (managers, key personnel).

(2) Components of the organization being studied.

(3) The total organization.

Thus, one or more matrices (see example--Fig. 1) are produced which reflect (depending upon detail of data) the total time of N persons devoted to:

(1) Various work functions (total or margin values).

(2) Service to various publics (total or margin values).

(3) Functional work performed which is directed toward a specific public (cell values).

(b) Computation of indices of duplication among organizational components (or individuals). Steps involved are:

(1) Using the standard matrix constructed for the study, enter in each cell the number of organizational components (or individuals) indicating various activities related to various publics. (See example--Fig. 2).

(2) Total cell scores (TCSC) across rows and down columns (see Fig. 2).

(3) Total the number of cells (NCEL) used for each row and column (see Fig. 2).

(4) Use the following formula to compute an index of duplication for each column and row:

SERVED PUBLICS / WORK FUNCTIONS/TASKS	A. PLANNING & RESEARCH			B. MANAGEMENT AND ADMINISTRATION					C. (PRODUCTION, ETC.)	TOTALS
	1 - FUNCTION A	2 - FUNCTION B		5 - FUNCTION A	6 - FUNCTION B	7 - TASK A	8 - TASK B			
A. INTERNAL										
1 - PERSON A	20	5								25
2 - PERSON B	10									10
3 - GROUP A				5						5
4 - GROUP B					10	5	5			20
B. EXTERNAL										
5 - ORGANIZATION A				5	10					25
6 - ORGANIZATION B				50						50
7 - ORGANIZATION C					5	20	20			45
8 - ASSOCIATION A		5								
9 - MARKET A	45	40					25		190	300
10 - MARKET B				15					10	25
TOTALS	75	50		75	25	25	50		200	500%

FIGURE 1: Sample Matrix of aggregated data for an Organizational Component (5 people), cell data reflect total percent of time devoted by N persons to work focused on serving various publics.

SERVED PUBLICS / WORK FUNCTIONS/TASKS	A. PLANNING & RESEARCH	1 - FUNCTION A	2 - FUNCTION B	B. MANAGEMENT AND ADMINISTRATION	5 - FUNCTION A	6 - FUNCTION B	7 - TASK A	8 - TASK B	C. (PRODUCTION, ETC.)	TOTALS
A. INTERNAL										TCSC NCEL
1 - PERSON A		3	2		7	1	10	9		32 (6)
2 - PERSON B			1		1		1		2	5 (4)
3 - GROUP A		9	4		2	1			1	17 (5)
4 - GROUP B					6	6	7	10	4	33 (5)
B. EXTERNAL										
5 - ORGANIZATION A			8				7	3	10	34 (4)
6 - ORGANIZATION B		1	1		1	3				6 (4)
7 - ORGANIZATION C		4	2		1	1		3		11 (5)
8 - ASSOCIATION A			1		1			1		3 (3)
9 - MARKET A		1	1		9	8			3	22 (5)
10 - MARKET B		5			7	9	9	8	4	42 (6)
TCSC		23	21		35	29	33	39	24	
TOTALS NCEL		(6)	(8)		(9)	(7)	(5)	(6)	(6)	

FIGURE 2: Sample Matrix of Raw Data indicating duplication among 10 related organizational components of work functions and service to various publics.

ID = (100/((NGRP·NCEL)-NCEL)) (TCSC-NCEL)/100

Where:

ID = Index of Duplication

TCSC = Total cell scores for a column or row

NCEL = Number of cells used in a row or column

NGRP = Number of organizational components in the study

The index ranges from 0 to 1 with 0 indicating no duplication in cells used by organizational components and 1 indicating duplication in cells used by all organizational components.[3]

(c) Aggregation of data to reflect emphasis on various organization and/or market structures:

(1) Specify organization structures (functional areas such as administration, research, production, etc.) and/or market structures (functional groupings of publics--either internal or external).

(2) Assign each of the publics and categories of work for which data were collected to the appropriate structure(s) identified.

(3) Construct matrices for display of data where cells relate the total effort invested by each organizational component in either functional areas of the entire organization or functional groupings of publics.

(4) Collapse data (cells or margins/totals) from matrices (see a) above) as defined (see c) above). Sum for appropriate margin totals.

(d) Other data analyses may be performed which offer interesting and useful insights. For instance, correlations of service to publics by organizational components can isolate the loci of duplication.

INTERPRETATION OF OUTPUTS

The range of defensible conclusions or observations which may be extracted from the data described is limited by:

(a) The detail of data collected (individuals or groups).

(b) The specificity of data collected (margin values or cell values).

(c) The accuracy of data collected (approximations or quantitative evaluations).

(d) The scope of the study (limited or complete organizational operations).

(e) The nature of the study (exploratory or problem oriented).

The nature of conclusions and observations which have been made based upon data using this study approach are:

1. Undesirable Duplication. The duplication may relate to either work functions performed by seperate organizational entities or their interactions with various publics. While internal duplication of work may not be too critical (leading to reduced efficiency), duplication of interaction with publics of importance to the overall organizations survival can be disasterous. Some studies have revealed communication/interaction linkages which were not thought to exist which resulted in conflicting information which was damaging to the organization's continued success.

2. Lack of Desirable Duplication. Some work functions should have a high degree of duplication of effort. For instance, in one case it became apparent that certain segments of a larger organization were not devoting adequate time to policy development in an area critical to the overall organization.

3. Excessive Effort. Some work functions or tasks can grow to dominate an organization's resources with undersirable results. Studies have revealed organization components or entire organizations bogged down in administrivia with resulting low productivity.

4. Inadequate Effort. Some functions critical to an organization's continued health and development may easily be slighted as a result of continuing or temporal concerns. Policy development and long range planning are frequent victims.

5. Decisions and control. The centralization or decentralization of decision making and control over daily operations can have important consequences related to employee activation and morale, and organizational productivity and success. Studies have revealed individual managers who duplicate efforts thought to be delegated to lower levels of the organization.

6. Domination of Organization output. Studies have revealed the extent to which organizations have become dominated by a single public or market -- when the opposite condition is desired.

CONCLUSION

The study methodology suggested has been successfully used for exploratory probes of organizational conditions and for the detailed analysis of specific problem areas in organizational operations. The approach can be (should be) molded to the specific purposes of the client and structured to be sensitive to existing conditions (such as employee reticence to the collection of individual data).

Indices of duplication (calculated using the method described) are especially useful in identifying potential areas of concern or interest when dealing with large matrices of work condtions and served publics.

FOOTNOTES

[1]There are, of course, important exceptions. A business or industrial organization may establish relatively independent components which serve or produce products only for other corporate components. Components of governmental organizations are commonly structured around specific legislation or organizational functions which make them captives of specific or limited publics.

[2]Conversion of time data from organizational components of differing size into percentages can ease calculations discussed under "Data Manipulation".

[3]Depending upon personal preference, the index of duplication can be a scale from 0 to 100 with the elimination of the divisor in the formula (100).

BIBLIOGRAPHY

Alan, L.P. and A.J. Rowe, Management Control and Decision Systems. Texts, Cases, and Readings. New York: Wiley and Sons, 1977.

Herbert, T.L., Dimensions of Organizational Behavior. New York: McMillian Publishing Co., Inc., 1976.

Iberall, A.S., Toward a General Science of Viable Systems. New York: McGraw-Hill Book Co., 1972.

Kast, F.E. and J.E. Rosenzweig, Organization and Management - A Systems Approach. New York: McGraw-Hill Book Co., 1970

Sanders, D.H., Murph, A.F., and R.J. Eng, Statistics-A Fresh Approach. New York: McGraw-Hill Book Co., 1976.

Simon, H.A., Administrative Behavior, 3rd Ed., New York: The Free Press, 1976.

Steiner, G.A. and J.b. Miner, Management Policy and Strategy. New York: McMillian Publishing Co. Inc., 1977.